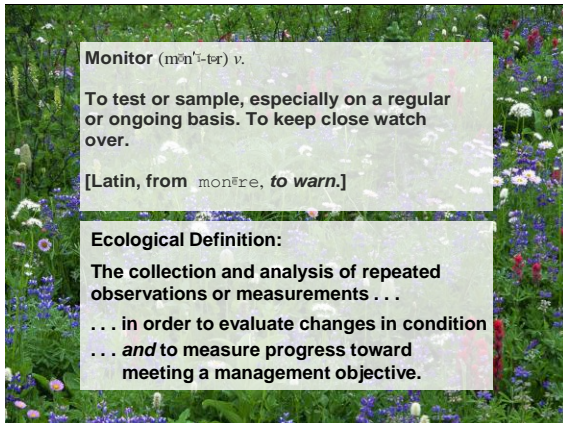


1: Introduction to Monitoring

1. Distinguish *Adaptive Management* monitoring from other similar data-gathering activities.
2. Identify the key steps in designing and implementing a monitoring program.
3. Draft and critique an ecological model.



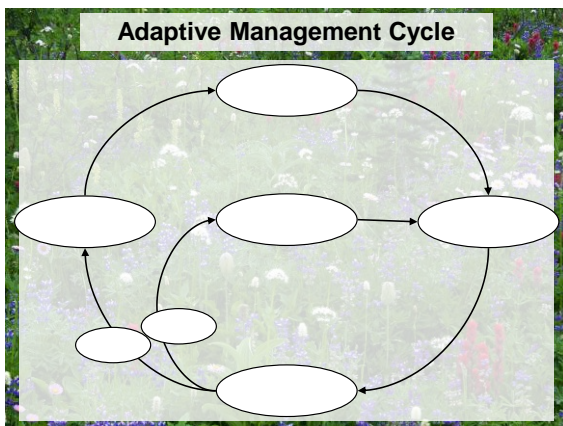
Monitor (mōn'ī-tr) v.

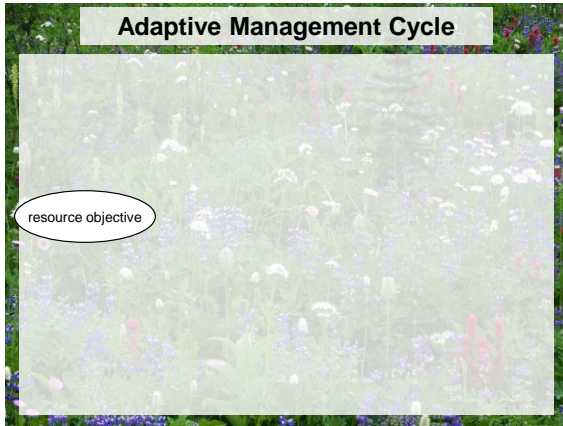
To test or sample, especially on a regular or ongoing basis. To keep close watch over.

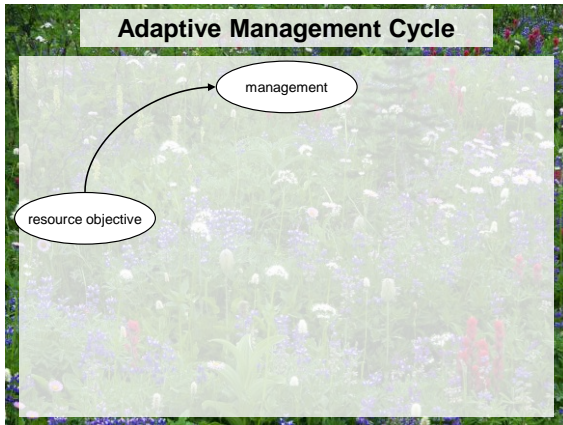
[Latin, from *monēre*, to warn.]

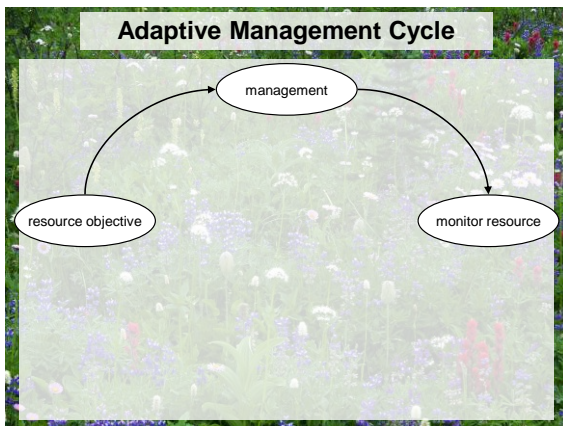
Ecological Definition:

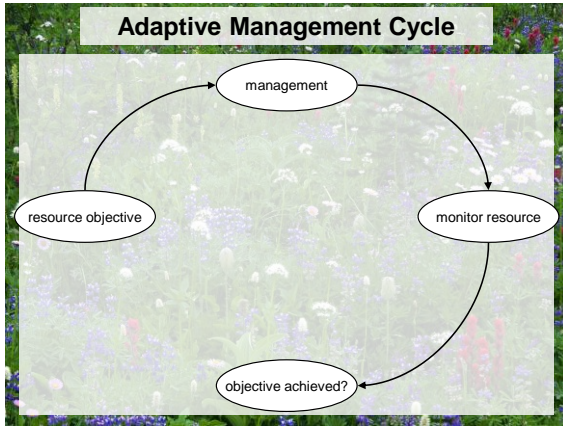
The collection and analysis of repeated observations or measurements . . .
 . . . in order to evaluate changes in condition
 . . . *and* to measure progress toward meeting a management objective.

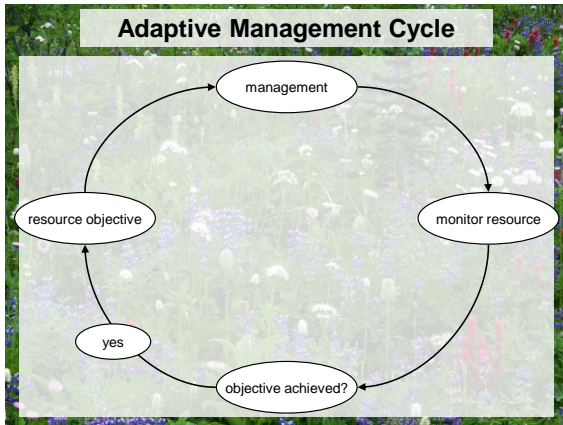


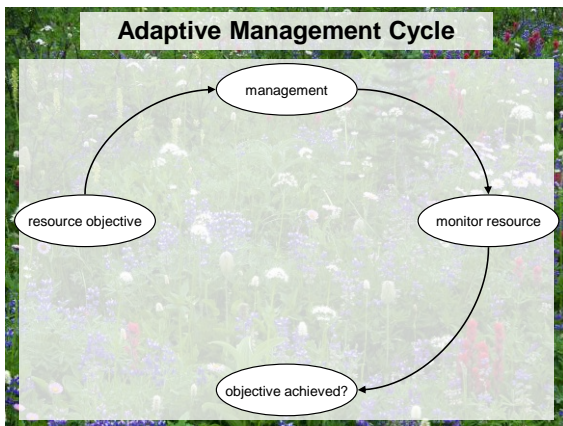


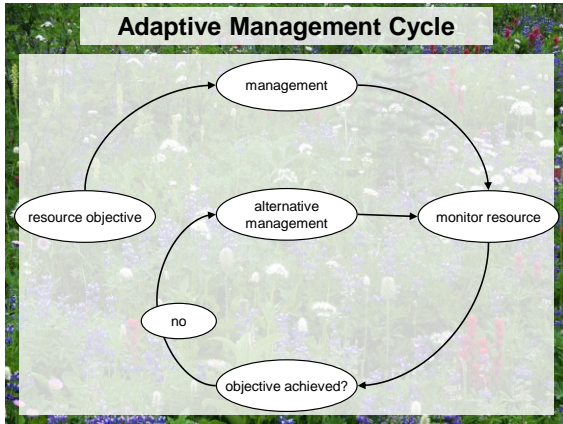


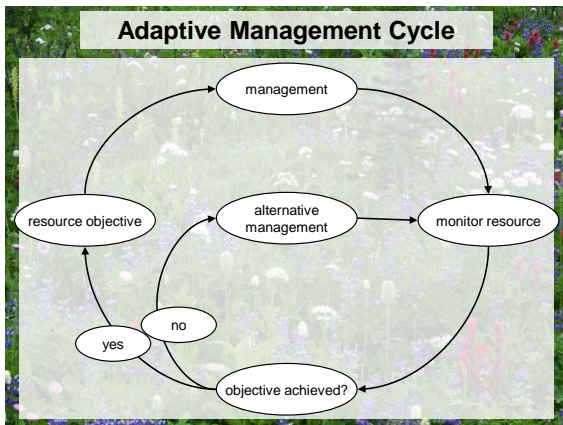


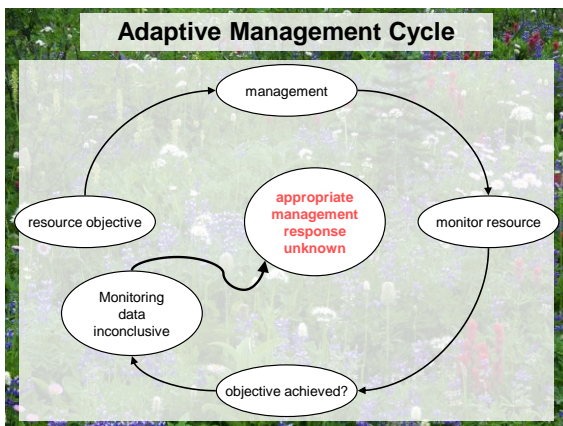


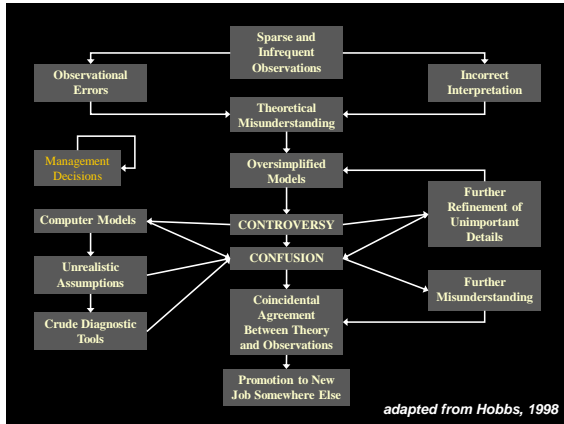


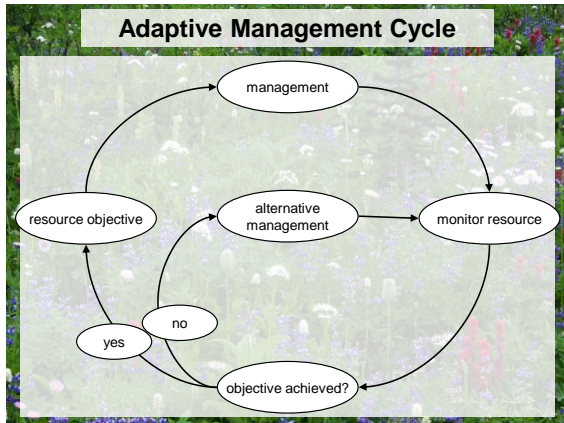


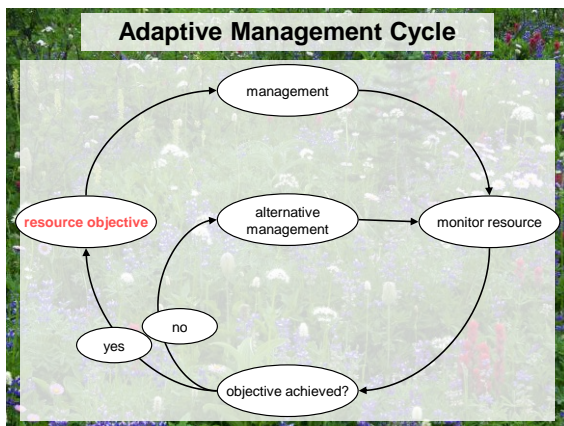


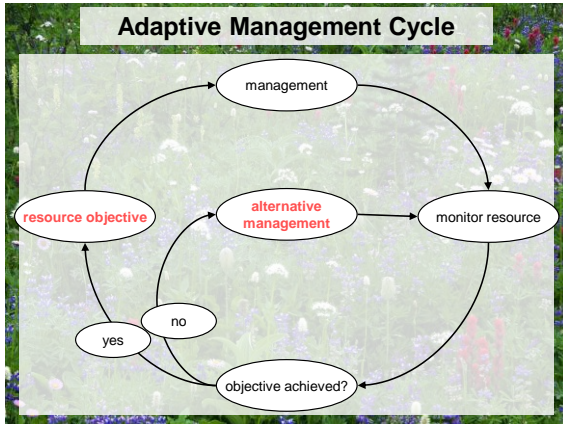




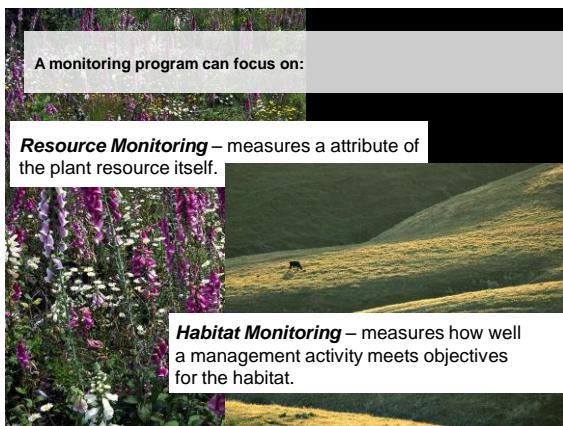








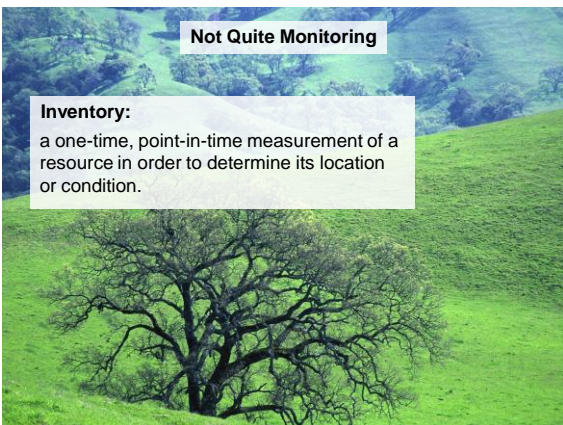








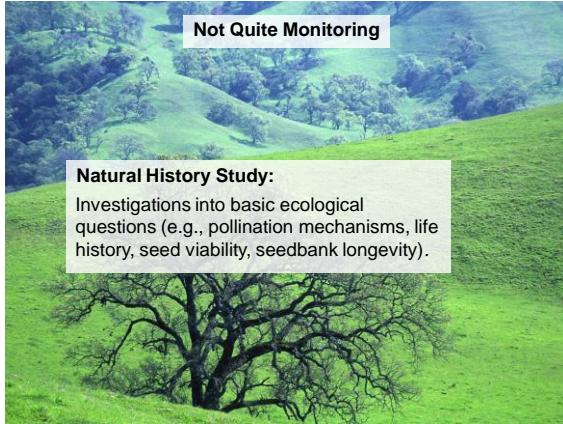
Not Quite Monitoring

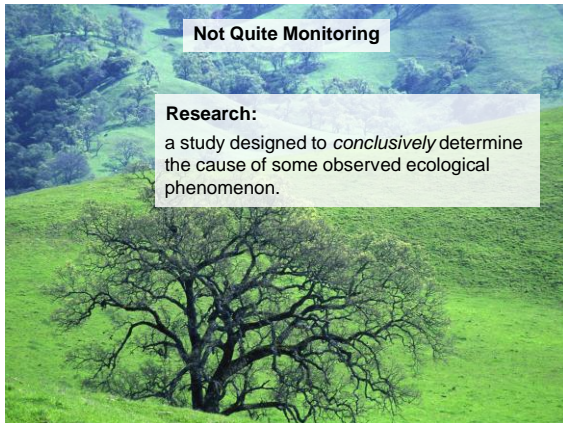


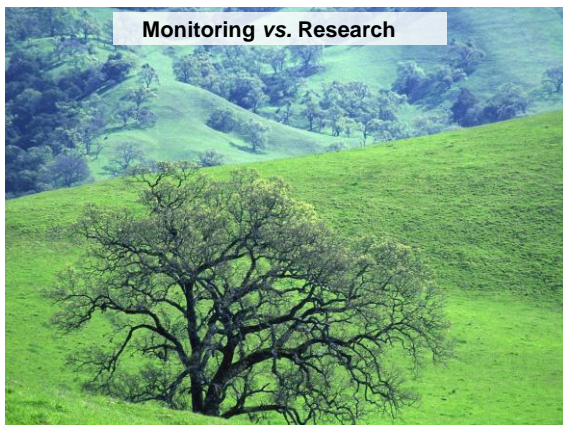
Not Quite Monitoring

Inventory:

a one-time, point-in-time measurement of a resource in order to determine its location or condition.







Monitoring vs. Research

A	B	C	D	E	F

Monitoring vs. Research

A	B	C	D	E	F
• no monitoring	• post monitoring only	• pre & post monitoring			
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">time →</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T T</div> <div style="text-align: center;">after</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T T</div> <div style="text-align: center;">before after</div>			

T unit where treatment is applied

Monitoring vs. Research

A	B	C	D	E	F
• no monitoring	• post monitoring only	• pre & post monitoring	• pre & post monitoring • treatment & control	• pre & post monitoring • treatment & control • minimum replication	• pre & post monitoring • treatment & control • good replication
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">time →</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T T</div> <div style="text-align: center;">after</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T T</div> <div style="text-align: center;">before after</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T C</div> <div style="text-align: center;">before after</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T C</div> <div style="text-align: center;">before after</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Burn</div> <div style="text-align: center;">T C</div> <div style="text-align: center;">before after</div>

T unit where treatment is applied C control unit

Not Quite Monitoring**Implementation Monitoring:**

a study designed to assess whether or not an activity was carried out as designed.

Not Quite Monitoring**Trend measurement:**

studies designed to measure how a resource is changing over time, without explicit management objectives for the resource.

Not Quite Monitoring**Baseline and Long-term ecological studies:**

assessments of many environmental variables against which future change is measured.